

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 20-22, 28, and 29 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim.

See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 7-19, 23-27, and 30 are rejected under 35 U.S.C. 102(c) as being anticipated by US 6,688,397 of McClurkin et al.

Regarding claims 7-18, McClurkin et al disclose apparatuses, methods, and systems that comprise:

a support member 57, and an adaptive expansion device 35 coupled to the support member for radially expanding and plastically deforming the tubular member 22, comprising: a support structure 44 coupled to the support member; and one or more expansion device segments 36 coupled to the support structure for engaging the tubular member to thereby radially expand and plastically deform the tubular member; one or more sensors 118 for sensing one or more operating conditions during the radial expansion and plastic deformation of the tubular member; and a controller operably coupled to the expansion device segments and the sensors; and wherein

the controller is programmed to controllably adjust one or more of the operational characteristics of one or more the expansion device segments as a function of the operating conditions sensed by the sensors (Figs. 1, 3, 4, and 12; col. 3, lines 36-67; col. 6, lines 41-58).

Furthermore, the tubular member 12 can be made up of a string of liner segments that are coupled to one another via threaded connections, as is notoriously known in the wellbore art. As the sensors are said to detect the inside diameter of the tubular, then the overlap at the threaded connection will inherently be sensed. Also, the sensors are operationally connected to each of the expansion device segments 36 and thus control the adjustable measurements taken from the segments. Lastly, the controller is said to detect the wellbore profile and risk areas, thus the subterranean formation is sensed by the controller (col. 6, lines 41-58).

Regarding claims 19 and 27, there are one or more expansion surfaces since there are multiple segments 36; 50 is an actuator with a plurality of degrees of freedom in the springs 52 (Figs. 3-5).

Regarding claim 24, the device is moved in the longitudinal direction in the tubular (Fig. 1).

Regarding claim 25, one of the expansion devices is rotated relative to the other and thus relative to the tubular (col. 3, lines 8-20).

Regarding claims 23, 26, and 30, pressurized fluid is applied to the interior surface as any fluid that is caught between the expanding element and the interior of the tubular will be pressurized to a certain degree.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McClurkin et al in view of the Applicant's own disclosure.

McClurkin et al teach apparatuses, methods, and systems in claims 7-18 that contain all of the claimed limitations in claims 1-6, with the exception of damping elements so that a damping rate and frequency can be sensed and controlled by the controller. However, the Applicant admits in paragraph 0028 that such adjustable damping elements are already disclosed in the prior art, thus at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the adjustable damping elements and frequency control of the prior art with the expansion device of McClurkin et al to achieve the predictable result of damping the movement of the device during expansion.

***Response to Arguments***

7. Applicant's arguments filed July 10, 2008 have been fully considered but they are not persuasive. The Applicant argues that McClurkin does not teach or suggest that movement of portions of the expansion device is controlled. This limitation is more limiting than the claims themselves as the claims only call for a "controller programmed to controllably adjust a *characteristic* of the expansion device" (emphasis added). Movement of the device, in any fashion, is not claimed, or even alluded to, as being controlled by the controller. As shown in the rejection above, measurements, such as the movement of the segments, are the characteristics that are being controlled; thus the limitations of the claims, as currently worded, are met by the McClurkin reference.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is (571)272-7026. The examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/  
Primary Examiner, Art Unit 3676